REMARKS/ARGUMENTS

This Amendment and Response is responsive to the non-final Office action dated October 23 2009, setting forth a shortened three-month statutory period for reply. The Assignee thanks the Examiner for reviewing this application and issuing an Office action.

Claims 73-154 are pending in the application, with claims 142-154 withdrawn from consideration. Claims 73, 105, 106, 139 and 140 are independent claims. By this Amendment, claims 79-82 and 113-116 are amended. Accordingly, after entry of this Amendment and Response, claims 73-154 remain pending (claims 142-154 being withdrawn), with claims 73, 105, 106, 139 and 140 being independent claims.

I.   Objections to Specification

The Examiner objects to the specification for failing to describe "the width of the pulse range is in the range 0.2 .mu.s and to 4 .mu.s." The recitation of the ".mu.s." in the claims is the result of a typographical error. Accordingly, claims 79-82 and 113-116 are amended to recite the unit "μs." Support for the range of 0.2 μs to 4 μs can be found in the specification in paragraph 27. The Assignee respectfully requests reconsideration and withdrawal of the objections to the specification.

II.   Claim Rejections Under 35 U.S.C. § 102

Claims 73-141 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Pat. No. 6,091,822 issued to Mellows et al. (hereinafter "Mellows"). For at least the following reasons, the Assignee respectfully disagrees with these rejections.

The Mellow reference is directed to a technique for preventing unauthorized playback of recorded video/audio signals. (Mellows, abstract). The technique disclosed by Mellows uses a number of cooperating processes, one of which being to invert the luminance channel just prior to FM modulation. (Mellows, col. 4, ll. 60-64). For use in combination with this first process, Mellows discloses a second process of inserting certain video pulses in the overscan area of the video signal. (Mellows, col. 5, ll. 9-13). When the video pulses inserted by the second process are inverted by the first process and are played on an unauthorized player, the video pluses are misinterpreted as negative-going synchronization pulses thereby causing an erroneous horizontal or vertical retrace. (Mellows, col. 5, ll. 55 – col. 6, ll. 18; col. 7, ll. 38-44; and col. 9, ll. 5-9). Video that is modified according to the technique disclosed by Mellows is adapted to be played on particular authorized players that have been modified to play the inverted luminance signal. (Mellows, col. 2, ll. 45-49). When the video signal is played on such an authorized

player, the inserted video pluses are properly output as video, but remain invisible to the viewer because they appear in the unseen perimeter or "overscan" regions of the video output. (Mellows, col. 5, II. 46-55).

The video pulses added by the second process of Mellows may be a "horizontal modification," described at col. 7, II. 5 – col. 8, II. 64; or a "vertical modification," described at col. 8, II. 66 – col. 9, II. 58. Fig. 3 of Mellows shows the effect of both the "horizontal modification" and the "vertical modification" when the video signal is played on an authorized player. Specifically, the "horizontal modification" appears as "checker" pattern 17 in the overscan region (see also Mellows, col.7, II. 45-51); and the "vertical modification" appears as white lines 8 in the overscan region (see also Mellows col. 9, II. 27-37). As can be seen from these portions of Mellows and from Figs. 5 and 6, the video pulses of the disclosed technique are added to the **lines of picture information** portion of the video signal. Mellows fails to disclose adding pulses to the **horizontal blanking region** or to the **vertical synchronisation pulses**.

For at least this reason, the Assignee respectfully submits that Mellows does not anticipate the claimed invention. With specific reference to independent claim 73, Mellows fails to disclose the following italicized claim elements:

> 73. A method of generating or modifying a programme signal to provide protection against copying on a programme recording device, the method comprising the steps of:
> receiving a programme signal or information for generating a programme signal divided into lines of information, said signal having horizontal synchronisation pulses and vertical synchronisation pulses for synchronising the programme on the screen of a receiver;
> *adding a pulse into said programme signal during the horizontal blanking interval* of lines that contain picture information and into lines in the vertical blanking region;
> *adding a first modulation signal to vertical synchronisation pulses of said programme signal*;
> adding a second modulation signal to lines of picture information in the vicinity of said vertical blanking region at the bottom of a frame of said programme signal;
> wherein said pulse, and said first and second modulation signals added to said programme signal are sufficient such that when said signal is copied by the recording device, interference is produced in the reproduction of the copied signal that is not visible in the reproduction of an uncopied programme signal.

In connection with adding pulses to the horizontal blanking interval, the Examiner cites col. 6, II. 45-51 and col. 7, II. 5-66. As can be seen in col. 7, II. 45-49, the cited portions of Mellows are directed to adding pulses to the overscan region of the picture signal:

FIGS. 5A-5D illustrate an alternate pattern of the timing and thus the positions of the white rectangles 18 previously shown and discussed relative to FIG. 3, which are added to the video signal **in the overscan portions 14, 16 at the beginning and/or end of the active video picture 11(FIG.3).** (Emphasis added)

Because the pulses are added to the overscan region, it follows that the pulses are added to the lines of picture information portion of the video signal and not to the horizontal blanking interval, as required by the claimed invention.

In connection with adding pulses to the vertical synchronisation pulses, the Examiner cites col. 8, ll. 66 - col. 9, ll. 57. As can be seen in col. 9, ll. 27-34, the cited portions of Mellows are directed to adding pulses to the overscan region of the picture signal:

FIGS. 6A-6B illustrate a preferred embodiment of the **timing positions of the white lines 8 in the bottom overscan portion 9**, previously mentioned in relative to FIG. 3. In particular, a plurality of the active video lines in the bottom overscan portion 9 have a white pulse 44 (FIG. 6B) of almost line period inserted therein, resulting in the generation of a white bar in the overscan portion 9. (Emphasis added).

Because the pulses are added to the overscan region, it follows that the pulses are added to the lines of picture information portion of the video signal and not to the vertical blanking interval. The claimed invention requires a modulation signal added to a vertical synchronization pulse within the vertical blanking interval. Because Mellows discloses adding a pulse and not a modulation signal, and because the pulse is added to the picture information and not to a vertical synchronization pulse, Mellows fails to anticipate the claimed invention.

For the foregoing reasons, the Assignee respectfully submits that Mellows fails to anticipate independent claim 73. For the same reasons, the Assignee respectfully submits that Mellows fails to anticipate independent claim 105, which recites "adding a pulse into said programme signal during the horizontal blanking interval," and "adding a first modulation signal to vertical synchronisation pulses"; independent claim 106, which recites "a first adder for adding a pulse into said programme signal during the horizontal blanking interval," and "a second adder for adding a first modulation signal to vertical synchronisation pulses"; independent claim 139, which recites "a first adder for adding a pulse into the programme signal during the horizontal blanking interval of lines that contain picture information and into lines in the vertical blanking region," and "a second adder for adding a first modulation signal to vertical synchronisation pulses"; and independent claim 140 "the modified signal comprising a pulse

during the horizontal blanking interval of lines that contain picture information and into lines in the vertical blanking region, the pulse being in addition to the horizontal synchronisation pulse," and "a first modulation signal in vertical synchronisation pulses of the programme signal."

Dependent claims 74-140 and 107-138 depend from and contain all the limitations of the independent claims 73 and 106. For at least the reasons that independent claims 73 and 106 are patentable, the Assignee respectfully submits that dependent claims 74-140 and 107-138 are patentable. This Assignee makes this statement without waiving any independent basis of patentable set forth in dependent claims 74-140 and 107-138. The Assignee reserves the right to argue the patentability of dependent claims 74-140 and 107-138 in a separately filed response.
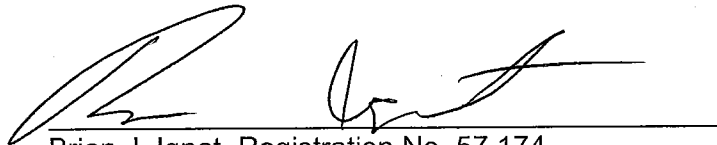
CONCLUSION

After entry of the above listing of claims, amended specification, and remarks, claims 73-141 remain in the application. In accordance with the amendments and arguments set forth herein, the Assignee respectfully submits the application and all claims are in a condition for allowance, and requests such prompt allowance.

The Assignee believes no fees or petitions are due with this filing. However, should any such fees or petitions be required, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 as necessary.

Should any issues remain that the Examiner believes may be dealt with in a telephone conference, he is invited to contact the undersigned at 303-629-3400.

Signed this _15_ day of January, 2010.

Respectfully submitted,

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